I, Sandra Jayne PARSONS BSc, MA,

translator to RWS Group plc, of Europa House, Marsham Way, Gerrards Cross, Buckinghamshire, England, hereby declare that I am conversant with the English and Japanese languages and am a competent translator thereof. I declare further that to the best of my knowledge and belief the following is a true and correct translation of the accompanying document in the Japanese language.

Signed this 30th day of April 2002

S. J. PARSONS

For and on behalf of RWS Group plc

(19) JAPANESE PATENT OFFICE (JP) (12) LAID-OPEN PATENTS GAZETTE (A)

(11) Laid-open patent application no. H1-247199

(43) Date laid open 3 October 1989

(51) Int. Cl.4 Identification code Internal office filing

number

B 42 D 15/00 3 7 1 7008-2C

Examination request Requested

Number of claims

(Total of 4 pages [in the original])

(54) Title of the invention

Adhesive sheet with film and device for the manufacture thereof

(21) Application no. S63-73172 (22) Filing date 29 March 1988

(22) Filing date 29 March 1988

(72) Inventor Y. Shinohara

3-3-28 Ogawa, Machida-shi, Tokyo-to

(71) Applicant Sanwa Shigyo K.K.

2-20-6 Hatchobori, Chuo-ku, Tokyo-to

(71) Applicant Kyodo Insatsu K.K.

4-14-12 Koishikawa, Bunkyo-ku, Tokyo-to

(74) Agent Patent attorney S. Inoue (and 1 other)

Specification

1 Title of the invention

5

10

15

25

30

35

Adhesive sheet with film and device for the manufacture thereof

2 Scope of the patent claims

- Adhesive sheet with film, wherein an adhesive layer is formed on the underside of the sheet, a film having a peel-off layer on the surface is adhered to said adhesive layer, an adhesive layer is provided on the underside of said film, perforated lines are formed in the abovementioned sheet so as to reveal said film, and a peel-away guide part is formed on one part of the abovementioned sheet delimited by said perforated lines.
- 2. Adhesive sheet with film according to Claim 1, wherein the abovementioned peelaway guide part is a non-adhesive layer part provided on the underside of the sheet.
- Adhesive sheet with film according to Claim 1, wherein the abovementioned peelaway guide part is a non-adherent part formed such that the adhesive layer on the underside of the sheet does not adhere to the film.
- Adhesive sheet with film according to Claim 1, wherein a non-see-through covering layer is provided on the underside of the abovementioned sheet.
 - 5. Device for the manufacture of an adhesive sheet with film and provided with: means for transferring the sheet and the peel-off sheet respectively; means for coating the underside of the sheet and the surface of the pecl-off sheet respectively with adhesive; means for heating the abovementioned sheet and peel-off sheet coated with adhesive; means for adhering a film having a peel-off layer on the surface to the face coated with adhesive of the peel-off sheet; and means for adhering the face coated with adhesive of the abovementioned sheet to the surface of said film.

3 Detailed description of the invention

The present invention relates to an adhesive sheet with film such that it is possible to conceal the part to be affixed to until the time comes to break the seal, and a device for the manufacture thereof.

Affixing a transparent film and a sheet adhered to said film to a postcard or the like has been proposed in order to conceal specific parts of goods and the writing side of documents such as postcards and the like, but there were times when it became impossible to peel off with ease

when breaking the seal, and when it was not possible to break the seal cleanly, and there were many times when production could not be achieved economically because it was complicated.

The present invention pertains to a system which improves upon these types of disadvantage and which has many other features in addition thereto, and is an adhesive sheet with film, wherein a film having a peel-off layer on the surface is attached to the underside of a sheet, an adhesive layer is provided on the underside of said film and said adhesive layer is made so as to adhere to the part to be affixed to of the postcard or the like, and, in order to reveal said film, perforated lines are provided in the abovementioned sheet, and a peel-away guide part is formed on one part of the sheet delimited by said perforated lines.

5

10

15

20

Further, with the present invention, a device is provided for manufacturing the adhesive sheet with film with which, while transferring the sheet and the peel-off sheet, the underside of said sheet and the surface of the peel-off sheet respectively are coated with adhesive, adhesive is fixed to each face by heating at the respective heating parts, and, thereafter, a film having a peel-off layer on the surface is adhered to the face coated with adhesive of the peel-off sheet, and the face coated with adhesive of the abovementioned sheet is adhered to the surface of said film. Adhesive sheets with film obtained in this way can be printed appropriately on the surface and punched to a specific size, perforated lines may be formed and a peel-away guide part may be formed when appropriate.

A detailed description will now be given in accordance with the drawings which show embodiments.

Figure 1 is a perspective view of the inventive adhesive sheet with film. Sheet (1) is such that 25 a film (2) is adhered to the underside thereof, the underside of said film and a projecting part (3) of the abovementioned sheet are adhered to a peel-off sheet (4), there are perforated lines (5), (5) to the inside of the outer edge of said film (2), and a perforated line (6) is formed along one perforated line (5) to delimit a tongue piece (7). It is possible to provide an appropriate display on the surface of said sheet by printing or the like, and to make the overall 30 shape circular or triangular or any other appropriate shape. It is also possible not to provide the peel-off sheet continuously, but to provide it cut and separated into individual sheets, to form labels or tags, or peel-off prize cards. Giving detailed descriptions of each of the abovementioned configurations with reference to Figures 2 to 5, it is possible to form an adhesive layer (8) on the underside of the abovementioned sheet (1), or in cases where said 35 sheet is see-through, to mix grey, brown or the like dark pigments into said adhesive layer (8), or to stick on a coloured film (9) as shown in Figure 3, or to provide a covering layer by implementing dark-coloured printing of the back of the sheet and then forming the

abovementioned adhesive layer (8) on the underside of said covering layer. In the part corresponding to the back of the tongue piece (7) delimited by the abovementioned perforated lines (5), (6), a peel-away guide part is formed so as to make peeling away easy. It is possible to form said peel-away guide part in various shapes, and as shown in Figure 2 and Figure 4, it can be formed by not providing an adhesive layer in the part where the pulling away of the tongue piece starts or along the tongue piece, to form a non-adhesive layer part (no paste) (10), or, as shown in Figure 5, ink, varnish, medium or the like can be printed on the underside of the adhesive layer (8) to provide a non-adherent part (masked paste) (11).

The abovementioned film (2) is made of a transparent or coloured transparent material which can be seen through, a peel-off layer (12) is provided in the surface, and an adhesive layer (13) is formed in the underside. The abovementioned pccl-off sheet (4) also has a peel-off layer (14) on the surface, but it is preferable that the peel-off layer (12) of the abovementioned film is more heavily peel-off treated in comparison with said peel-off layer (14), and that the sheet (1) adhered to the upper surface of the film is more difficult to peel away than the film.

10

15

20

25

30

35

To use the abovementioned adhesive sheet with film, it is preferable to peel the whole assembly away from peel-off sheet (4), and then to affix it to the postcard or other part to be affixed to (15), and by doing so, it is possible to conceal the writing side of the part to be affixed to (15) with the sheet (1). Then, to break the seal at the necessary time, by taking the end part of the abovementioned tongue piece (7), because the peel-away guide part such as the non-adhesive layer part (10) (Figure 6) or the non-adherent part (11) (Figure 7) or the like is formed on the underside of said tongue piece, the tongue piece (7) can be peeled away easily, after which it is possible to pull away the cover part (17) of the sheet using the end edge (16) as a hold. In this way, the abovementioned film (2) is revealed, and so it is possible to see through to the writing side or the like of the part to be affixed to (15). Further, because the abovementioned tongue piece (7) can be torn away from the cover part (17), one can determine that the seal has been broken.

The abovementioned adhesive sheet with film can be made using the manufacturing device shown in Figure 8 and onwards.

In the figures, pecl-off sheet (4) with peel-off layer (14) formed on the surface and stencil paper constructing the sheet (1) are respectively sent via transferring means such as sending rollers (18), (19), provided in each position. Then, adhesive (22) is coated by coating means such as coating rollers (20), (21), onto the underside of sheet (1) and the surface of peel-off sheet (4). At this time, an adhesive layer may be formed on all of pecl-off sheet (4), or, as

shown in Figure 9, a plurality of lines of adhesive layers (13)... may be formed. In this case, a knife (23) having a projection suitable for removing adhesive may be attached to the coating rollers, or the adhesive may be coated using a roller with a gully attached (not shown) which gully is formed to be concave so that the adhesive does not stick. Further, in the abovementioned sheet (1), as shown in Figure 10, an adhesive layer (8) is formed on all of the underside, but when the abovementioned non-adhesive layer (10) is provided, a knife (24) or the like having projections for removing the adhesive at appropriate places may be provided.

After coating with adhesive, said sheet (1) and peel-off sheet (4) are sent to the heating part 10 (25), and the adhesive is dried. At this time, the temperature of the heating part may be from 70°C to 120°C, but this temperature should not damage sheet (1) and peel-off sheet (4).

Film (2) having a peel-off layer (12) which has been heavily peel-off treated in comparison with the peel-off layer (14) of the abovementioned peel-off sheet is positioned subsequent to the abovementioned heating means, and while the abovementioned peel-off sheet (4) is being transferred, it is overlapped with the face coated with adhesive and adhered thereto, this is then sandwiched together by pressure roller (26) and rubber roller (27) and sent (Figure 11). Since the abovementioned film (2) is adhered to all of the peel-off sheet (4) as shown in the figure, the parts which correspond to parts where the abovementioned adhesive layers (13)... are not formed are useless. Accordingly, cuts (29) are made in said film (2) along the edge part of the adhesive layer, using a slitter blade (28), and belt-shaped useless parts (30)... are suctioned using suction pipe (31) and removed (Figure 12). In this state, as shown in Figure 13, film (2) is adhered to the upper surface of peel-off sheet (4).

15

20

35

After this, the face coated with adhesive of the abovementioned sheet (1) is superposed on the upper surface of the abovementioned film (2), and sandwiched together by pressure roller (32) and rubber roller (33), to adhere both parts (Figure 14). In this state, since a plurality of adhesive sheets with film are established in a row, if these are cut (35) in the part where the abovementioned adhesive layer (13) is not formed using a slitter blade (34), a plurality of sheet materials (36) in which film (2) and sheet (1) are adhered on the surface of the peel-off sheet (4) can be obtained at one time.

A product like that shown in Figure 1 can be obtained if the sheet material (36) obtained as above is set in a printing machine, the surface of the sheet is printed appropriately, the sheet and the film are punched into the appropriate shapes whilst perforated lines are formed in the sheet, and then the useless parts are removed. Figure 15 shows one example of a printing machine, and the abovementioned sheet material (36) is separated into a sheet part (37) having an adhesive layer, and a peel-off sheet part (38) having a film, and the surface of the

sheet part (37) is printed using plate roller (39). At this time, in order to form a non-adherent part (11) on the adhesive layer (8) by printing as detailed above, a paste face printing device (40) may be provided on the face which has been coated with adhesive of sheet part (37) and printed appropriately. After this, the abovementioned sheet part (37) and the peel-off sheet part (38) are superposed, sandwiched together using pressure roller (41), and a punching device (42), such as a rotary die cutter or a flat die cutter, is used to punch the abovementioned sheet part (37) and film (2) into the appropriate shape and to form perforated lines (5), (5), (6) in the sheet. The peripheral useless parts (43) are taken away, to obtain product (44).

It should be noted that in the abovementioned manufacturing device and printing device, the surface of the rollers which contact the adhesive layer may be treated with silicon, Teflon or another such non-adherent material.

15 Configuring the present invention as described above means that easy-to-use adhesive sheet with film can be obtained and that this type of sheet can be made economically.

4 Brief description of the figures

The figures show embodiments of the present invention, where:

20 Figure 1 is a perspective view;

5

10

Figures 2 and 3 are part exploded sections;

Figures 4 and 5 are explanatory views separating and showing the respective constructional parts;

Figures 6 and 7 are part perspective views showing the use state;

25 Figure 8 is a side surface view of the manufacturing device;

Figures 9 to 14 are respective explanatory views during the manufacturing process, with:

Figure 9 being a perspective view of the state in which the adhesive has been coated onto the peel-off sheet;

Figure 10 being a front surface view of the sheet coated with adhesive;

30 Figure 11 being a perspective view of the state in which film is adhered to the peel-off sheet;

Figure 12 being a plan view of the suction pipe part;

Figure 13 being a front surface view of the state in which the useless parts of the film have been removed; and

Figure 14 being a front surface view of the state in which the sheet is adhered on top of the film; and

Figure 15 is a side surface view of one example of the printing machine.

1 sheet

35

2 film

4 peel-off sheet

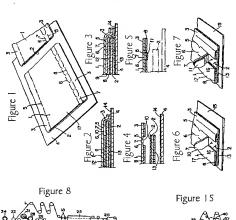
5, 6 perforated line

5 Patent applicant Sanwa Shigyo K.K.

Agent Patent attorney S. Inoue [seal]

Agent Patent attorney S. Indue [seal]

Agent Patent attorney Y. Kamegawa [seal]



ADHESIVE SHEET WITH FILM AND ITS MANUFACTURING DEVICE

Patent Number: JP1247199

Publication date: 1989-10-03
Inventor(s): SHINOHARA TAKAYUKI

Applicant(s):: SANWA SHIGYO KK; others: 01

Application Number: JP19880073172 19880329

Priority Number(s):

IPC Classification: B42D15/00

EC Classification:

Equivalents: JP1934632C, JP6059752B

Abstract

PURPOSE:To allow the section to be attached to be covered until sheet is separated from film by forming an adhesive layer on the under surfaces of the sheet and the film, attaching the film with a peel-apart layer on the surface of the adhesive layer of the sheet, and forming a guide section for peel-apart on a part of the sheet with a defined cut-off section.

CONSTITUTION: Sheet 1 has film 2 of a material which allows itself to be seen through on the under surface, and the under surface of the film and the extended section of the sheet are attached to peelapart sheet 4. Cut-off lines 5, 5 are provided inside the periphery of the film 2, and a tongue-shape piece 7 is formed along one cut-off line 5 to define the other cut-off line 6. When the adhesive sheet with film is used, the whole sheet is separated from the peel-apart sheet 14 and is attached to a post card or any other materials. In this way, the descriptive surface of the material can be covered with the sheet 1. Then the tongue-shape piece 7 can be peeled apart by holding the end of the piece whenever necessary. Furthermore, the covered section 17 of the sheet can be separated by using the rear edge 16 of the piece as a guide. Thus the film 2 is allowed to come out of the sheet and the descriptive surface of the material 15 can be seen through.

Data supplied from the esp@cenet database - 12

⑬ 日本 国特許庁(JP)

① 特許出願公開

◎ 公開特許公報(A) 平1-247199

@Int.Cl. 4 B 42 D 15/00 識別記号 庁内整理番号 @公開 平成1年(1989)10月3日

371

7008-2C

請求項の数 5 (全4頁) 審査請求 有

の発明の名称

フィルム付粘着シート及びその製造装置

の特 **阿** 昭63-73172 公出 **顾** 昭63(1988)3月29日

降 幸 @発明者 三和紙業株式会社 の出 類 人

東京都町田市小川3丁目3番28号 東京都中央区八丁堀2丁目20番6号

の出 願 人 共同印刷株式会社 弁理士 井上 清子 四代 理 人

東京都文京区小石川 4 丁目14番12号 外1名

発明の名称 フィルム付粘着シート及びその製産装置 /、 シートの下面に粘着剤層を形成し、酸粘着剤 層に表面に刺濫層を有するフィルムを摂着し、 訣ァイルムの下西に粘着剤層を設け、上記シー トに誤フィルムを現出するよう刃取線を形成し、 数切取額により重皮された上記シートの一系に 利取案内据を形成したフイルム付粘増シート。 2. 上記制取案内部は、シートの下面に設けた非 粘着制層部である請求項!犯罪のフィルム付料 着シート。 3. 上記到数案内部は、シートの下面の結婚剂用

がってルム化価値しないように形成した非接着

4、 上記シートの下面に不透視性の違数層を設け

ておる誰求項!記載のフィルム付給着シート。

な、シートと制限シートをそれぞれ事故する手段、

シートの下面及び刺媒シートの表面にそれぞれ

思である請求順!記載のフィルム付贴着シート。

粘着剤を独布する手段、粘着剤を独布した上記 シート及び剝離シートを加熱する手段、 粉離シ - トの粘着剤性市面に表面に剝離房を有する? イルムを使潜する手段、上記シートの粘着形法 右面 を 抜 フ イ ル ム の 表面 化 逆 着 寸 る 手 段 を 具 備 するフィルム付粘着シートの製造装置。 発明の群風な説明 本発明は、開封するまで被貼付部を隠蔽できる ようにしたフイルム付粘着シート及びその製造装 要書その他の書類の記載面や物品等の特定部分 を隠蔽するため、透明なフイルムと放フイルムれ

れているが、朔針時に容易に刺すことができなか つたり、きれいK開封できないことがあり、生た 製査が衝倒で軽視的に得られないものが多かつた。 本発明はそのような欠点を改善しその他の技々 の特長を有するようシートの下面に、表面に制度 暦を有するフィルムを接着し、 該フィルムの下面

に 钻着剤原を設け、 談帖着剤原を要素等の被貼付

装着したシートを乗書等に貼付することが提案さ

-603-

```
トの延出器(3)が制度シート(4)に接着され、数フィ
配に根盤するようにし、かつ上記フイルムを現出
                          ルム(2) の間繰より内筒に切取線(5)、(5)が有り、一
するため上記シートに勿取扱を設け設切取扱によ
                          方の切取額(5) に沿つて切取額(6)を形成して舌片(7)
り画広されたシートの一部に刺取案内部を形成し
                          を正成してある。数シートの表面には印刷等によ
たフィルム村粘着シートに係るものである。
                           り西食の表示を敷けることができ、また全体の影
 また、本発明によれば、フィルム付給階シート
                           状も円形、三角形その他の適宜の形にすることが
を製造するようシートと刺繍シートを移送しなが
                           できるし、刺激シートに連続的に設けないで、一
ら該シートの下面及び刺雑シートの表面にそれぞ
                           故ずつ切ねして設け、ラベル、レンテルとしたり。
れ粘液剤を使布し、それぞれ加熱器で加熱して粘
雅剤を各面に定着し、その後刺激シートの粘着剤
                           スピードくじとして形成することもできる。上記
                           各諸成を第2回~第1回を参照して群述すると、
佐布面に表面に対解層を有するフイルムを設着し、
                           上記シート(1)の下面には粘着耐層(8)を形成しても
数フイルムの表面に上記シートの粘着剤能布面を
                           り、跛シートが透視性を有するような場合に吐、
接着する装置が提供される。このようにして得ら
                           旅站着州暦(8) ボグレー、茶色等の曲い色葉を混在
れたフイルム付粘着シートは、適宜表面に印刷し
                           させるようにしたり、第38mぷすように着色フ
たりして所足の大きさに打抜いたり、切取線を形
                           イルム(5)を貼つたり、シートの要面に負色の印刷
成すればよく、また週時に刺取案内器を形成すれ
                           を施すことにより建設局を設け、該連数層の下面
HIV.
 以下実施例を示す図面と共に辞継に説明する。
                           に上記枯着料階(8)を形成するとよい。上記切取扱
 新 / 図は、本発明のフィルム付粘着シートの斜
                           (5)、(6)により画成された舌片(7)の裏面に対応する
                           死分には、刺取を容易にするよう刺取案内部を形
机図を示してある。シート(1)は下面にフイルム(2)
                           抜してある。 談判取案内部は確々に形成すること
を接着してあり、鉄ァイルムの下面及び上記シー
                           斜取案内裁を形成してあるので、容易に舌片(7)を
ができ、弟2図、弟4四に示すように、舌片に沿
                           耕取ることができ、その後蟾籍M6を手がかりとし
つて若しくは舌片の刺取始めの部分に、粘着剤層
                           てシートの復形切を削すことができる。 このよう
を設けないで非粘着剤層盛(のり抜き)00を形成
                           にして上記ァイルム(2)は現出するので、被貼付品
したり、第5回に示すように粘着剤層(8)の下面に
                           切の記載面等を透視することができる。また、上
インキ、ニス、メジュウム等を印刷して非接着既
                           記舌片切が豊弱切から引取られることにより、開
(のり校し) 印を設けてある。
                           対した事実が分る。
 上記フィルム(2)は透明乃至有色透明の透視可能
                            上記フィルム付粘着シートは、鉱よ図以路に示
な材質で形成され、表面に制態層時を設け、下面
                           ナ製造装置により作ることができる。
に粘着剤層四を形成してある。上記剃難シート(4)
                            図において、要面に刺腹層04を形成した刺根シ
6 安面に剝渡層04 を有しているが、放射離層04 K
                           - ト(4) 及びシート(1) を構成する原紙は、それぞれ
比べて上記フイルムの刺激層四を重視機・破壊し、
                           各所に設けた老りロール四、個等の都送手段で送
ァイルムの上面に簡潔されたシート(1)の方がァイ
                           られる。そして、シート(1)の下面と刺離シート(4)
ルムより利れにくくなるようにするとよい。
                           の表面に、数者ロール如、四等の被右手段で粘着
 上記フイルム付粘潜シートを使用する代は、利
                           対切を生布する。この際、刺媒シート(4)には、全
継シート(4)から全体を刺し、薬者その性の被貼付
                           谕に 粘着剤層を形成してもよいが、 第7回に示す
部時に貼付ければよく、このようにすれば被貼付
                           ように、複数列の粘着剤層四…を形成するように
結婚の記載面券をシート(1)により隠蔽することが
                            してもよい。この場合には、粘着剤を除去する週
できる。そして、必要時に開封するには、上記言
                           立の突起を有するドクターナイフ四を推布ロール
片(7)の器器をつまめば、数舌片の下面には非粘層
                           火付款したり、粘着剤が付着しないよう凹帯を形
利層 邸 (q ( 第 4 個 ) や 非 級 惹 思 (10 ( 第 7 回 ) 等 の
                        -604-
```

特間平1-247199 (2)

持開平1-247199 (3)

成した前付の一へ(図示略)でお客間を始まする ようにすればよい。また、上記シート(切には、第 /の図に示すように下面の変単に妨離用度(切を形 成してあるが、上記弁結準制度(切を設ける場合は、 適所にも増加減を除去する実だを有するドクターナー

核瀬別生お後、語シート(II) は、加巻路側に送られ、話瀬別は乾隆される。このとき、加巻服の温度は約70℃~120℃無世られているが、この温度によりシート(II) 及び別類シート(II) が復せされることはない。

上記 料度 シートの料度 解例に比べて 質料度 約度 された 対策 原図 を れずるフィー ペーロば、上記 知恵 新度 の で K 化 産 日 して は り、上 足 利度 セート (川 が 移 正 する 金中 で 5 元 来 の で K 上 で 日 、 上 記 1 元 本 (本) で 大 で 1 元 本 (本) で 1 元 本 (本) で 1 元 本 (本) で 1 元 本 (本) で 1 元 本 (本) で 1 元 本 (本) で 1 元 本 (本) で 1 元 か ら、上 記 1 元 本 (本) で 2 元 本 (本) で 2 元 本 (本) で 2 元 本 (本) で 2 元 本 (本) で 2 元 本 (本) で 2 元 本 (本) で 2 元 本 の で 2 元 ま か に て な 2 元 か らで こ ま か け て 2 元 か の で 2 元 ま か に て 、 ス リ フ 3 ー 刃 の で で 3 元 で 、 ス リ フ 3 ー 刃 の で

たお、上記製造残器及び印刷装置において、結 強利用が侵するちゃ - 小の表面は、クリコン、テ フェンその他の非拠着性材料で始度しておくとよい。

本発明は上記のように構成され、使用しあいフィルム付む着シートが得られ、かつこの親シート を延済的に作ることができる。

※ 図面の簡単な説明 図面は本発明の実施例を示し、第/図は新説図、

数フィルム(1)を結項期間の疑解に沿つて切断的し、 複数の不要片の…を受引性ので表引して販売する (質/18日)。このようにした状態では、第/3 図に示すように料理シート(1)の上面にフィルム(1) が顕著されている。

有するシート部分のとフィルムを有する刺激シー

1 … シート、 2 … フイルム、 4 … 制度シート、 5 、 5 … 切取線

代理人 房理士 井 上 荷 子 (C) (代理人 房理士 串 上 荷 朱 乐)

